aggregate revenue estimates, these costs would be 4% of the core interim standard and 8% of the total punch list.[154] Call-forwarding signaling information identifies the direction and destination of a call, and call-waiting signaling information identifies the origin and termination of each communication. We also conclude that access to subject-initiated dialing and signaling information may be necessary in order for the LEA to isolate and correlate call-identifying and call content information. Knowing what features a subject is using will ensure that the LEA receives information "in a manner that allows it to be associated with the communication to which it pertains."[155] For example, without knowing that a subject has switched over to a call on call-waiting, the LEA may not be able to associate the call-identifying information with the call content to which it pertains and thus could be more likely to mistake one call for another. Further, we conclude that all in-band signals generated by a subject that must be processed at the IAP (e.g., rotary dial pulse digits, on-hook, off-hook, and flashes) are reasonably available to the carrier. Dual tone multi-frequency (DTMF) signals generated by a subject that must be processed at the IAP also are reasonably available to the carrier; however, some DTMF signals generated by the subject are post-cut-through digits and are addressed separately in this order. To the extent CPE is used to perform any of the functions described here, and no network signal is generated, that information is not reasonably available to a carrier, and thus, is not required to be provided.[156] Thus, we conclude that the provision of subject-initiated dialing and signaling information is a technical requirement that meets the assistance capability requirements of section 103.[157]

4. In-band and out-of-band signaling

83. *Background.* This technical requirement would enable a telecommunications carrier to send a notification message to the LEA when any network message (ringing, busy, call waiting signal, message light, *etc.*) is sent to a subject using facilities under surveillance. For example, if someone leaves a voice mail message on the subject's phone, the notification to the LEA would indicate the type of message notification sent to the subject (such as the phone's message light, audio signal, text message, *etc.*). For calls the subject originates, a notification message would also indicate whether the subject ended a call when the line was ringing, busy (a busy line or busy trunk), or before the network could complete the call.

---

[154] *See* Appendix B, *infra.*

[155] Section 103(a)(2)(B) of CALEA, 47 U.S.C. § 1002(a)(2)(B).

[156] *See* sections 103(a)(2) and 103 (b)(1)(A) of CALEA, 47 U.S.C. §§ 1002(a)(2) and 1002(b)(1)(A).

[157] 47 U.S.C. § 1006(b).

84. The *Further NPRM* stated that certain types of in-band and out-of-band signaling, such as notification that a voice mail message has been received, appear to constitute call-identifying information; whereas other types of in-band and out-of-band signaling may constitute call content information and thus would raise questions as to under what authority they should be provided to the LEA. The *Further NPRM* therefore sought comment on what types constitute a technical requirement necessary to meet the CALEA assistance capability requirements.[158] The five manufacturers' aggregate revenue estimate for this capability is $57 million.[159]

85. *Comments.* Nextel and PCIA each state that in-band and out-of band signaling information is not call-identifying because in-band and out-of-band messages are not used to route calls, but merely inform the subject as to the status of calls made or received.[160] Nextel states that what identifies the origin, direction, destination, or termination of a call are the numbers dialed, not any subsequent network signal that provided information about the call.[161]

86. TIA states that certain types of network signaling may constitute call-identifying information or call content, but most of the broad range of signals sought by the FBI are neither. TIA maintains that there are hundreds of features supported by modern switches that provide some sort of signaling within the scope of the FBI's request, and that in order to report this signaling each of these features would require software modifications, affecting the entire system architecture. TIA asserts that if we require carriers to report any such signals, we should specify which signals are covered and should clarify that carriers can provide notification only of those signals that are sent to the subject's unit and that are generated by the serving switch.[162] SBC generally agrees with TIA, and also states that to the extent that network signaling can be audibly detected over the subject's subscriber line, they constitute call content and can be obtained only under a Title III authorization.[163]

87. Ameritech states that a notification that a voice mail message has been received is not call-identifying information because that type of message is associated with the provision

[158] *Further NPRM*, at ¶¶ 99-100.

[159] *See Public Notice*, at 4.

[160] Nextel Comments, at 13; PCIA Comments, at 29.

[161] Nextel Comments, at 13.

[162] TIA Comments, at 32-33.

[163] SBC Comments, at 14.

of an information service, which we acknowledge is not part of CALEA.[164] Nextel and US West, Inc. (US West) agree.[165]

88. DoJ/FBI state that, contrary to industry commenters, network signaling constitutes call-identifying information because without such signaling, a subject will be unaware that an incoming call is taking place and the calling party will never reach the subject. DoJ/FBI further state that there are many circumstances in which the interim standard's existing messages, such as the Termination Attempt message,[166] will not provide the LEA with knowledge of the network signaling presented to the subject. Additionally, DoJ/FBI state that SBC's argument that audible network signals constitute call content is not legally supported because Title III is designed to protect communications between the parties using a telecommunications network, not signaling by the network. Finally, DoJ/FBI argue that network notification of waiting voice mail messages is covered by section 103 because when a carrier sends a network notification message to alert a subscriber that he has received a voice mail message, the carrier is not acting as an information service provider.[167]

89. *Discussion.* We conclude that some in-band and out-of-band signaling constitutes call-identifying information under section 102(2) of CALEA and that the anticipated costs to carriers of adding this capability are not so exorbitant as to require automatic exclusion of the capability. In percentage terms, based on the manufacturers' aggregate revenue estimates, these costs would be 6% of the interim core standard and 14% of the total punch list. Certain types of signals, such as ringing and busy signals, clearly fall within the scope of call-identifying information because they indicate information about the termination of a call. Other types of signals, however, may simply be used by carriers for supervision or control of certain functions and features of the network and do not trigger any audible or visual message to the subscriber and, thus, would not be call-identifying information. We thus conclude that in-band and out-of-band signals that are generated at the IAP toward the subscriber (e.g., call waiting or stutter dial tone) and that are being used for call processing purposes are call identifying information that is reasonably available to the carrier. Other signals that provide call identifying information (e.g., busy, fast busy, audible ringing tone), although generated elsewhere in the carrier's network, pass through the IAP on their way to the subject even if they are not used for call processing and can be made available without excessive modifications to the network and thus are reasonably available to the carrier. To the extent CPE is used to perform any of the functions described

[164] Ameritech Comments, at 8.

[165] Nextel Comments, at 14; US West Comments, at 20-21.

[166] The Termination Attempt message is used to report a connection-oriented call termination attempt. J-STD-025, at § 6.3.10.

[167] DoJ/FBI Reply Comments, at 49-51.

here, and no network signal is generated, that information is not reasonably available to a carrier and thus is not required to be provided.

5. Timing information

90. *Background.* In those cases where the LEA has obtained authorization to intercept both content and call-identifying information, this capability would require that a telecommunications carrier send call timing information to the LEA so that the LEA could associate the call-identifying information with the actual content of the call. There would be two elements to this capability:

> 1) Each call-identifying message (answer message, party join message, party drop message, *etc.*) would be time stamped within a specific amount of time from when the event triggering the message occurred. This time-stamp would allow the LEA to associate the message with the call content information *(i.e.*, the conversation). DoJ/FBI propose that the time stamp be accurate to within 100 milliseconds.
>
> 2) A carrier would be required to send the call-identifying message to the LEA within a defined amount of time after the event to permit the LEA to associate the number dialed to the conversation. DoJ/FBI propose that the event be defined as the time the message is received at the switch's IAP, and that delivery from the IAP to the LEA's Collection Function[168] take place within 3 seconds 99% of the time.

91. The *Further NPRM* tentatively concluded that this capability is call-identifying information and therefore must be provided by the carrier to the LEA where reasonably available.[169] The five manufacturers' aggregate revenue estimate for this capability is $20 million.[170]

92. *Comments.* Industry commenters argue that timing information is not call-identifying and is not required by CALEA. AirTouch states that a time stamp is not part of the call, does not identify the origin, direction, destination, or termination of the call, and would not

[168] The Collection Function is responsible for collecting lawfully authorized intercepted communications (i.e., call content) and call-identifying information for a LEA. The Collection Function is the responsibility of the LEA. J-STD-025, at § 5.3.1.3.

[169] *Further NPRM*, at ¶¶ 104-105.

[170] *See Public Notice*, at 4.

have been picked up from the call on a traditional pen register or trap and trace interception.[171] Ameritech and AT&T similarly assert that timing information is not call-identifying, and AT&T proposes that any timing requirements be message specific, taking into account the nature of the event that prompts the message and its relative importance to a LEA to know it.[172] AT&T argues that any timing requirement should have to be met only 95% of the time.[173] Finally, Sprint PCS states that it already provides LEAs with various types of call identifying information within 4-6 seconds of the event's occurring.[174]

93. TIA states that it disagrees that timing information is call-identifying, but says that it does not oppose a timing provision within the final standard. TIA asserts that while manufacturers would prefer to maintain the standard's "expeditious access" requirement,[175] they are willing to replace that provision with a specific amount of time, as long as that time is reasonable and consistent with current system architectures. TIA proposes that such a timing requirement apply to the time between detection of the event by the interim standard's Delivery Function[176] and the sending of the call-identifying message from the Delivery Function toward the LEA's Collection Function, and that the message be sent within eight seconds 95% of the time, and with an accuracy near 200 milliseconds.[177]

94. DoJ/FBI argue that the interim standard must be modified to incorporate a specific timing requirement in order to give effect to the general timing provisions of section 103(a)(2).[178] They further argue that the timing requirements they suggest are feasible and constitute a performance standard, not a design standard; and that we are not being asked to prescribe any

[171] AirTouch Comments, at 22.

[172] AirTouch Comments, at 10; AT&T Comments, at 14-15.

[173] AT&T Comments, at 15.

[174] Sprint PCS Reply Comments, at 3.

[175] The Call-Identifying Information Intercept Access Point provides expeditious access to the reasonably available call-identifying information for calls made by an intercept subject or for calls made to an intercept subject. J-STD-025, at § 4.4.

[176] The Delivery Function is responsible for delivering intercepted communications and call-identifying information to one or more Collection Functions. J-STD-025, at § 5.3.1.2.

[177] TIA Comments, at 35-37.

[178] DoJ/FBI Comments, at 57.

specific design by which the timing requirements are to be met.[179] NYPD agrees with DoJ/FBI that the requested 3 second delivery timeframe with 99% probability and 100 millisecond accuracy for the time stamp is needed to ensure timely delivery of call-identifying information.[180]

95. *Discussion.* We will adopt a timing information requirement as an assistance capability requirement of section 103 of CALEA.[181] First, we find that time stamping is call-identifying information as defined in section 102(2) of CALEA.[182] This information is needed to distinguish and properly associate the call identifying information with the content of several calls occurring at approximately the same time. In other words, time stamp information is needed to identify "the origin, direction, destination, or termination" of any given call and, thus, fits within the statutory definition of section 102(2). Second, we find that delivery of call-identifying information, including time stamp information, to the LEA must, pursuant to section 103(a)(2), be provided in such a timely manner to allow that information "to be associated with the communication to which it pertains."[183] Third, we find that the anticipated costs to carriers of adding this capability are not so exorbitant as to require automatic exclusion of the capability. In percentage terms, based on the manufacturers' aggregate revenue estimates, these costs would be 2% of the core interim standard and 5% of the total punch list.[184] Therefore, we will include timing parameters for delivery of call-identifying information as a technical requirement necessary to meet the assistance capability requirements of section 103(a).

96. Specifically, because we find it to be a reasonable compromise between the DoJ/FBI and TIA proposals, we will adopt the DoJ/FBI proposal that the event be defined as the time the call-identifying information is received at the IAP and TIA's proposal that this information, including a time stamp, be transmitted to the LEA's Collection Function within eight seconds 95% of the time, and that the time stamp be accurate within 200 milliseconds. We find that TIA's proposal to define the event as the time the call-identifying message is detected by the Delivery Function to be insufficient because in some circumstances this message might not be detected by the Delivery Function until well after it was received at the IAP. However, we find the DoJ/FBI proposal for delivery of the message from the IAP to the LEA's Collection function within 3 seconds 99% of the time with 100 millisecond accuracy to be overly stringent and

[179] DoJ/FBI Reply Comments, at 52-54.

[180] NYPD Comments, at 10.

[181] 47 U.S.C. § 1006(b).

[182] 47 U.S.C. § 1001(2).

[183] 47 U.S.C. § 1002(a)(2).

[184] *See* Appendix B, *infra.*

possibly excessively costly to carriers given the various network designs used by carriers in different services applying this requirement. Accordingly, we will require that delivery of a call-identifying message be transmitted to the LEA's Collection Function within eight seconds of its receipt by the IAP 95% of the time, and with an accuracy within 200 milliseconds.

6. Surveillance status

97. *Background.* This capability would require the telecommunications carrier to send information to the LEA to verify that a wiretap has been established and is still functioning correctly. This information could include the date, time, and location of the wiretap; identification of the subscriber whose facilities are under surveillance; and identification of all voice channels that are connected to the subscriber. This information would be transmitted to the LEA when the wiretap is activated, updated or deactivated, as well as periodically.

98. The *Further NPRM* tentatively concluded that surveillance status messages do not fall within any provisions of section 103 and therefore should not be required for CALEA compliance. The *Further NPRM* tentatively concluded that such messages could be useful to LEAs, but are not required by the plain language of CALEA.[185] The five manufacturers' aggregate revenue estimate for this capability is $37 million.[186]

99. *Comments.* Industry commenters agree that this capability is not required by CALEA.[187] TIA states that there is no statutory basis for this requirement, and that it would be extremely difficult and costly to implement, particularly for wireless services. TIA contends that a wireless surveillance status requirement would require significant modifications to system architecture to verify electronically that every relevant mobile switch and every other piece of network equipment containing intercept-related data is operational and properly configured.[188]

100. DoJ/FBI state that section 103 obligates carriers to take affirmative steps to ensure surveillance integrity, and that the interim standard excuses carriers from taking any such steps. DoJ/FBI contend that a carrier that does not take any affirmative steps to monitor the integrity of authorized electronic surveillance is not "ensuring" that its equipment, facilities, and services are capable of delivering "all communications" and all reasonably available call-identifying

---

[185] *Further NPRM*, at ¶¶ 109-110, 114-115, and 121-122.

[186] *See Public Notice*, at 4.

[187] AT&T Comments, at 10; Ameritech Comments, at 10; AirTouch Comments, at ii; Bell Atlantic Comments, at 5; CTIA Comments, at 33; Nextel Comments, at 15; PCIA Comments, at 18; SBC Comments, at 16; TIA Comments, at 37; US West Comments, at 21.

[188] TIA Comments, at 38.

information that law enforcement is authorized to intercept while protecting the privacy and security of other communications and call-identifying information.[189] DoJ/FBI further argue that TIA's argument that implementing these messages would require fundamental design of wireless networks assumes that the reporting of surveillance status messages would require a central implementation. According to DoJ/FBI, however, a wireless carrier would be free to transmit surveillance status messages directly from each network element involved in the surveillance, just as each switch will separately transmit call-identifying information and call content to law enforcement.[190] The New Jersey State Police (NJSP) and NYPD agree with DoJ/FBI that a surveillance status message is necessary.[191]

101. *Discussion.* CALEA requires carriers to ensure that authorized wiretaps can be performed in an expeditious manner,[192] and we believe that a surveillance status message could assist carriers and LEAs in determining the status of such wiretaps. We conclude, however, that a surveillance status message does not fall within any of the provisions of section 103. We do not believe that it is call-identifying information as defined by CALEA, since the information such a feature would provide would not identify "the origin, direction, destination, or termination of each communication."[193] Nor does a surveillance status message appear to be required under section 103(a)(1), since it is not a wire or electronic communications carried on a carrier's system. Nor are we persuaded by the FBI's interpretation that a surveillance status message is required by CALEA's direction that a carrier "shall ensure" that its system is capable of meeting the section 103(a) requirements. Rather, we note that the Act expressly states: "a telecommunications carrier shall ensure that its equipment, facilities, or services . . . are capable of" intercepting communications and allowing LEA access to call-identifying information.[194] We interpret the plain language of the statute to mandate compliance with the capability requirements of section 103(a), but not to require that such capability be proven or verified on a continual basis. Ensuring that a wiretap is operational can be done in either a technical or non-technical manner, and section 103(a) does not include "ensurance" itself as a capability. Thus, we conclude that the surveillance status punch list item is not an assistance capability requirement under

[189] DoJ/FBI Comments, at 57-60.

[190] DoJ/FBI Reply Comments, at 55.

[191] NJSP, at 1; NYPD, at 11.

[192] Section 103(a) of CALEA, 47 U.S.C. § 1002(a).

[193] 47 U.S.C. § 1001(2).

[194] *Id.*

section 103.[195] However, we are confident that carriers and LEAs will work together to ensure that a wiretap is functioning correctly. We also note that there is nothing that would prevent carriers from providing this capability either on a voluntary basis, or with compensation from LEAs.[196]

7. Continuity check tone

102. *Background.* This technical requirement would require that, in cases where a LEA has obtained authority to intercept wire or electronic communications, a C-tone or dial tone be placed on the call content channel received by the LEA from the telecommunications carrier until a user of the facilities under surveillance initiates or receives a call.[197] At that point, the tone would be turned off, indicating to the LEA that the target facilities were in use. This capability would permit correlation between the time a call is initiated and the time the connection is established. The C-tone would also verify that the connection between the carrier's switch and the LEA is in working order.

103. The *Further NPRM* tentatively concluded that continuity check tones do not fall within any provisions of section 103 and therefore should not be required for CALEA compliance. The *Further NPRM* tentatively concluded that such tones could be useful to LEAs, but are not required by the plain language of CALEA.[198] The five manufacturers' aggregate revenue estimate for this capability is $3 million.[199]

104. *Comments.* Industry commenters agree that this capability is not required by CALEA.[200] AirTouch states that a carrier's diligent compliance with the industry standard,

---

[195] 47 U.S.C. § 1006(b)(1).

[196] In this regard, we note that Sprint PCS contends that it conducts tests with LEAs to confirm that a wiretap has been activated and conducts additional manual tests upon request from a LEA. Additionally, Sprint PCS contends that LEAs can verify the functioning of call content channels by reviewing call detail messages. *See* Sprint PCS *Ex Parte* filing of June 25, 1999, at 16.

[197] This feature differs from a surveillance status message because it permits the LEA to know whether the facilities under surveillance have an active call. A surveillance status message permits the LEA to know that the wiretap is operational, whether or not there is an active call.

[198] *Further NPRM*, at ¶¶ 114-115.

[199] *See Public Notice*, at 4.

[200] AT&T Comments, at 10; Ameritech Comments, at 10; AirTouch Comments, at ii; Bell Atlantic Comments, at 5; Nextel Comments, at 15; PCIA Comments, at 20; SBC Comments, at 17; TIA Comments, at 38; US West Comments, at 21.

coupled with its observation of routine maintenance and operational standards, will adequately ensure the integrity of wiretap surveillance facilities.[201] Bell Atlantic contends that this capability, as well as the surveillance status and feature status capabilities, would give LEAs information they have not previously had and, accordingly, these capabilities should be rejected.[202] PCIA argues that the delivery of an automated continuity check would require carriers to install C-tone generators at the switch.[203]

105. DoJ/FBI reiterate the arguments they make with respect to surveillance status messages, contending that section 103 obligates carriers to take affirmative steps to ensure surveillance integrity, and that the interim standard excuses carriers from taking any such steps.[204] DoJ/FBI also contend that PCIA's assertion that delivery of an automated continuity check tone would require carriers to install C-tone generators at the switch level is incorrect, because a C-tone is not the only form of continuity check that would be acceptable to LEAs.[205]

106. *Discussion.* As with the case of surveillance status messages, we believe that continuity tone could assist the LEA in determining the status of a wiretap, but that this technical requirement is not necessary to meet the mandates of section 103(a). Similar to our reasoning regarding surveillance status messages, we do not believe that a continuity tone falls within CALEA's definition of call-identifying information, since the information such a feature would provide would not identify "the origin, direction, destination, or termination of each communication."[206] Nor does it appear to be required under section 103(a)(1), since it is not a wire or electronic communications carried on a carrier's system. Furthermore, as explained above, the plain language of the statute mandates compliance with the capability requirements of section 103(a), but does not require that such capability be proven or verified on a continual basis. Again, ensuring that a wiretap is operational can be done in either a technical or non-technical manner, and section 103(a) does not include "ensurance" itself as a capability. Thus, we conclude that the continuity tone punch list item is not an assistance capability requirement under section 103.[207] As noted in paragraph 101, *supra*, we are confident that carriers and LEAs

[201] AirTouch Comments, at ii.

[202] Bell Atlantic Comments, at 5.

[203] PCIA Comments, at 20.

[204] DoJ/FBI Comments, at 57.

[205] DoJ/FBI Reply Comments, at 56.

[206] 47 U.S.C. § 1001(2).

[207] 47 U.S.C. § 1006(b)(1).

will work together to ensure that a wiretap is functioning correctly, and also note that there is nothing that would prevent carriers from providing this capability either on a voluntary basis, or with compensation from LEAs.[208]

8. Feature status

107. *Background.* This technical requirement would require a carrier to notify the LEA when specific subscription-based calling services are added to or deleted from the facilities under surveillance, including when the subject modifies capabilities remotely through another phone or through an operator. Examples of such services are call waiting, call hold, three-way calling, conference calling, and call return.[209] Also, the carrier would be required to notify the LEA if the telephone number of the facilities under surveillance was changed or service was disconnected.[210]

108. The *Further NPRM* tentatively concluded that feature status messages do not fall within any provisions of section 103 and therefore should not be required for CALEA compliance. The *Further NPRM* tentatively concluded that such messages could be useful to LEAs, but are not required by the plain language of CALEA.[211] The five manufacturers' aggregate revenue estimate for this capability is $40 million.[212]

---

[208] We note that Sprint PCS contends that it currently provides continuity tones to LEAs. *See* Sprint PCS *Ex Parte* filing of June 25, 1999, at 17.

[209] We note that some services, such as call return, are available on either a subscription or per-call basis. DoJ/FBI assert, however, that the availability of per-call features is irrelevant to their petition and that they do not seek to require carriers to notify a LEA of a subscriber's use of these features. They explain that carriers should simply alert a LEA to the assignment or removal of features that can affect call content or call-identifying information from a line under surveillance. They conclude that, "[a]s a practical matter, law enforcement will know in advance what per-call features a particular carrier makes available to its subscribers, and will have collected enough information to predict the . . . likely use of such features, before initiating an intercept, and will be able to order the appropriate number of call content and call data channels based on this information." *See* DoJ/FBI Reply Comments, at 74.

[210] DoJ/FBI Joint Petition for Expedited Rulemaking, March 27, 1998, at Appendix 1, 14-15.

[211] *Further NPRM*, at ¶¶ 121-122.

[212] *See Public Notice*, at 4.

109. *Comments.* Industry commenters agree that this capability is not required by CALEA.[213] SBC contends that it is unreasonable to mandate measures that would require the wholesale redesign of a carrier's network simply to comply with a LEA's preferences regarding surveillance. SBC also contends that while it is necessary for changes in the telephone number of the facilities to be conveyed to a LEA, that need is already being met through existing administrative procedures.[214] US West states that it has provided LEAs with expeditious access to feature status information in the past and will do so in the future. US West also contends that LEAs never before had the access that DoJ/FBI now is demanding to carriers' databases, and that DoJ/FBI's reasons for seeking this access are unconvincing.[215] PCIA maintains that provision of a feature status message by a carrier is not feasible because a carrier may not know which features a subscriber has implemented at any particular time.[216]

110. DoJ/FBI reiterate the arguments they make with respect to surveillance status messages and continuity check tones, contending that section 103 obligates carriers to take affirmative steps to ensure surveillance integrity, and that the interim standard excuses carriers from taking any such steps.[217] DoJ/FBI also contend that PCIA's assertion that carriers may not be able to provide a feature status message because they may not know which features a subscriber has implemented at any particular time is inconsistent with the way carriers' networks operate.[218] NYPD agrees with DoJ/FBI that a feature status capability is needed by LEAs, and states that this capability is particularly necessary with respect to call forwarding and when a subject disconnects his service or changes his telephone number.[219]

111. *Discussion.* Similar to surveillance status messages and continuity tones, we believe that feature status messages could be useful to a LEA, but that provision of these messages from a carrier to a LEA is not required to meet the mandates of section 103(a). First, we believe it is clear that feature status messages do not constitute call-identifying information since the information such a feature would provide would not identify "the origin, direction,

---

[213] AT&T Comments, at 17; Ameritech Comments, at 10; AirTouch Comments, at ii; Bell Atlantic Comments, at 5; Nextel Comments, at 15; PCIA Comments, at 21; SBC Comments, at 17; TIA Comments, at 39; US West Comments, at 23.

[214] SBC Comments, at 17.

[215] US West Comments, at 23-24.

[216] PCIA Comments, at 21.

[217] DoJ/FBI Comments, at 57.

[218] DoJ/FBI Reply Comments, at 56-57.

[219] NYPD Comments, at 12.

destination, or termination of each communication."[220] Further, feature status messages do not appear to be required under section 103(a)(1) because they are not wire or electronic communications carried on a carrier's system. Rather, they would simply aid a LEA in determining how much capacity is required to implement and maintain effective electronic surveillance of a target facility, information that could be useful in assuring that an interception is fully effectuated and the intercepted material delivered as authorized. However, as noted by AT&T, the information that would be provided by feature status messages can be provided by other means, such as in response to a subpoena to the carrier. We reiterate that the plain language of the Act mandates compliance with the assistance capability requirements of section 103(a), but does not require carriers to implement any specific quality control capabilities to assist law enforcement. The information sought by DoJ/FBI in a feature status message can be provided in either a technical or non-technical manner, and section 103(a) does not include "ensurance" itself as a capability. Thus, we conclude that the feature status punch list item is not an assistance capability requirement under section 103.[221] Similar to surveillance status messages and continuity check tones, we are confident that carriers and LEAs will work together to ensure that some form of feature status capability is provided, and also note that there is nothing that would prevent carriers from providing this capability either on a voluntary basis, or with compensation from LEAs.[222]

9. Dialed digit extraction

112. *Background.* This capability would require the telecommunications carrier to provide to the LEA on the call data channel the identity of any digits dialed by the subject after connecting to another carrier's service (also known as "post-cut-through digits"). One example of such dialing and signaling would occur when the subject dials an 800 number to access a long distance carrier. After connecting to the long distance carrier through the 800 number, the subject then dials the telephone number that represents the ultimate destination of the call.

113. The *Further NPRM* tentatively concluded that the identity of post-cut-through digits representing all telephone numbers needed to route a call, for example, from the subscriber's telephone through its LEC, then through IXC and other networks, and ultimately to the intended party is call-identifying information. The *Further NPRM* sought comment on

[220] 47 U.S.C. § 1001(2).

[221] 47 U.S.C. § 1006(b)(1).

[222] In this regard, we note that Sprint PCS contends that it currently provides to LEAs handset-initiated feature codes, and can provide a record if the subject changes features using a Sprint PCS business office. Additionally, Sprint PCS contends that one of its vendors is hopeful that in the future it will be able to provide software "triggers" so that all changes in feature status can be delivered automatically to LEAs. *See* Sprint PCS *Ex Parte* filing of June 25, 1999, at 13.

whether such call-identifying information is reasonably available to the carrier originating the call.[223] The five manufacturers' aggregate revenue estimate for this capability is $121 million.[224]

114. *Comments.* EFF, EPIC, and ACLU argue that CALEA does not permit a LEA to obtain post-cut-through digits via a pen register order directed at the initial telecommunications carrier because those digits are carried on the initial carrier's call content channel, and therefore must be treated the same as other call content and not revealed to a LEA through a pen register order served on that carrier. EFF, EPIC, and ACLU maintain that information contained in the call content portion of a transmission does not qualify as call-identifying because it does not identify the "origin, direction, destination or termination" of the initial carrier's communications.[225]

115. PCIA and TIA each assert that post-cut-through digits are not call-identifying information and are not reasonably available to the originating carrier.[226] TIA states that a carrier has no reason to detect dialed digits that are not used for call routing, and the manufacturers' switch designs do not contemplate their detection since they are meaningless to the switch after the call is routed. Further, TIA contends, modifying these fundamental switch designs would be extraordinarily difficult and expensive.[227]

116. PCIA, Ameritech, and BellSouth propose alternative ways for a LEA to obtain post-cut-through dialed digits. PCIA states that, under the interim standard, a LEA would be provided with these digits if it either serves the LEC with a Title III warrant and arranges for the provisioning of a CCC from that carrier, or serves the interexchange carrier (IXC) with a pen register warrant and arranges for the provisioning of a CDC from that carrier. PCIA states that given the availability of these alternatives, we should not expand the interim standard in a manner that conflicts with section 103.[228] Ameritech and BellSouth propose another alternative method, which they claim would be less expensive than our proposal that would require carriers to redesign touchtone detector architectures and add detector hardware to their switches. Ameritech and BellSouth propose that a LEA obtain a pen register warrant, order a CCC from the originating carrier, and install equipment at the LEA's collection facility to extract dual tone

[223] *Further NPRM*, at ¶ 128.

[224] *See Public Notice*, at 4.

[225] EFF, EPIC, and ACLU Comments, at 26-28.

[226] PCIA Comments, at 33; TIA Comments, at 23.

[227] TIA Comments, at 23.

[228] PCIA Comments, at 33-34.

multi frequency (DTMF) digits. According to Ameritech and BellSouth, such a practice would allow carriers to avoid the expense of both developing a digit extraction feature and keeping touchtone registers tied to a monitored call for the duration of that call.[229]

117. AirTouch argues that a dialed digit extraction capability would be particularly expensive for wireless carriers to implement. It cites a vendor estimate that each dialed digit extraction would cost about $1000; thus, a carrier whose switching system has the capability of conducting 200 simultaneous wiretaps would have to pay roughly $200,000 -- an amount that AirTouch maintains is comparable to the per-switch cost of the software upgrade for the entire punch list.[230]

118. DoJ/FBI argue that the statutory definition of call-identifying information encompasses all dialing and signaling information that identifies the destination of each communication generated or received by a subscriber regardless of whether the particular carrier from whom the information is being sought uses the information for call routing purposes; accordingly, DoJ/FBI maintain that it is irrelevant whether an originating carrier uses post-cut-through digits to route calls through the network. DoJ/FBI also contend that the argument of EFF, EPIC, and ACLU regarding a LEA's lack of authority to obtain call content channel information with only a pen register order is incorrect. DoJ/FBI state that the pen register statute authorizes LEAs to acquire all call-identifying numbers dialed or otherwise transmitted by the subject using the monitored facilities. Ideally, DoJ/FBI state, carriers would have the capability to automatically distinguish between post-cut-through digits used for call completion and those used for other purposes, but in the absence of such a capability, the carrier must deliver all post-cut-through digits to the LEA. Additionally, DoJ/FBI argue that post-cut-through digits cannot be obtained expeditiously from other carriers, and often will not be available at all; and that for a LEA to provision a CCC to extract post-cut-through tones at the LEA's collection facility would cost LEAs as much as $20 million per year. Moreover, DoJ/FBI argue that delivering the contents of a subject's post-cut-through communications to a LEA pursuant to a pen register order could pose unnecessary risks to privacy interests because innocent conversations might be heard by LEAs in the course of such surveillance.[231]

119. *Discussion.* We find that some digits dialed by a subject after connecting to a carrier other than the originating carrier are call-identifying information. While a subject may dial digits after the initial call set-up that are not call-identifying -- e.g., a bank account number to access his/her bank statement -- some digits dialed after connecting to an IXC identify the

[229] Ameritech Comments, at 12-13; BellSouth Comments, at 18.

[230] AirTouch Comments, at ii and 26-27.

[231] DoJ/FBI Reply Comments, at 57-64.

"origin, direction, destination or termination" of the communications. We also find that this call-identifying information is "reasonably available" to the originating carrier because the digits dialed by a subject after connecting to another carrier are present at an IAP and can be made available by the originating carrier without the carrier being unduly burdened with network modifications.[232]

120. Additionally, we note that there appears to be a consensus that LEAs should be permitted to obtain in some fashion digits dialed by the subject after connecting to another carrier's service. PCIA, Ameritech, and BellSouth have proposed alternative methods of extracting such digits, and these methods would minimize the expense to originating carriers. However, each alternative method also raises significant concerns. The first method proposed by PCIA -- a LEA serving the originating carrier with a Title III warrant and arranging for the provisioning of a CCC from that carrier -- is not feasible unless the LEA can obtain the legal authorization necessary for a Title III warrant. The burden of proof necessary for obtaining a Title III authorization is more stringent than that required for a pen register warrant, and a pen register is all that is required to obtain call-identifying information. We do not believe that CALEA contemplates changing the standard of proof in obtaining a warrant in order to avoid implementing a particular CALEA feature.

121. The second method proposed by PCIA -- a LEA serving an IXC with a pen register warrant and arranging for the provisioning of a CDC from that carrier -- would shift the cost burden from the originating carrier to the LEA, which would not necessarily be less expensive to the public. Further, this method could be time-consuming, particularly if a caller used multiple IXCs to complete a single call, and thus would seem to defeat one of the purposes of CALEA to preserve the ability of law enforcement officials to conduct electronic surveillance effectively and efficiently in the face of rapid advances in telecommunications technology.[233] Finally, this method would shift to the LEA responsibility for ensuring that the interception is conducted in a way that protects the privacy and security of communications not authorized for interception, and thus would effectively relieve carriers of their obligations under section 103(a)(4) of CALEA.

122. The method proposed by Ameritech and BellSouth -- a LEA obtaining a pen register warrant, ordering a CCC from the originating carrier, and installing equipment at the LEA's collection facility to extract DTMF digits -- would again shift the cost burden from the originating carrier to the LEA and thus not necessarily effect a cost savings for the public. Additionally, this method would jeopardize privacy because the LEA would be using a CCC, and therefore would obtain call content, as well as call-identifying, information under a pen

[232] *See* ¶¶ 28-31, *supra.*

[233] *See again* 140 Cong. Rec. H-10779 (daily ed. October 7, 1994) (statement of Rep. Hyde).

register warrant. Thus, to an even greater extent than the second method proposed by PCIA, this method would shift to the LEA responsibility for ensuring that the interception is conducted in a way that protects the privacy and security of communications not authorized for interception, and thus would relieve carriers of their obligations under section 103(a)(4).

123. Accordingly, while we are concerned about the costs of a dialed digit extraction capability to originating carriers, as well as the privacy implications of permitting LEAs to access non-call-identifying digits (such as bank account numbers) with only a pen register warrant, we find that requiring this capability is appropriate. We find that adopting our proposal rather than one of the three alternatives suggested in the comments will best balance the directives of section 107(b) of CALEA that the capability requirements of section 103 be met by cost-effective methods and that the privacy and security of communications not authorized to be intercepted be protected. As with packet switching, the LEA will be required to minimize its search of the CDC for call-identifying information. With respect to costs, we note that the manufacturers' revenue data indicate that the cost of a dialed digit extraction capability would exceed the cost of any other punch list capability. In percentage terms, based on the manufacturers' aggregate revenue estimates, this cost would be 13% of the core interim standard and 29% of the total punch list.[234] Based on the manufacturers' wireless revenue estimates, this cost would be 17% of the core interim standard and 26% of the total punch list.[235] However, in balancing these costs against other statutory requirements, we do not find them to be so exorbitant as to require automatic exclusion of the capability. Further, it is unclear whether any of the alternative methods proposed would be significantly less expensive; rather, they would simply shift the cost burden from carriers to LEAs. Thus, we conclude that the provision of dialed digit extraction information by the originating carrier is a technical requirement that meets the assistance capability requirements of section 103.[236]

D. Disposition of J-STD-025 Modifications

124. *Background.* In the *Further NPRM,* we stated that we expected that TIA Subcommittee TR45.2 would modify the interim standard to be consistent with any additional technical requirements we adopt, and that we anticipated that the Subcommittee would complete those modifications within 180 days of release of this *Third R&O.* We noted that this was an ambitious schedule, but we stated that we believed it to be achievable because the Subcommittee has been examining CALEA technical standards issues for several years and the modifications

[234] *See* Appendix B, *infra.*

[235] *Id.*

[236] 47 U.S.C. § 1006(b).

to J-STD-025 are likely to be relatively limited. Finally, we stated that we would set a separate compliance deadline for those additional technical requirements.

125. *Comments*. TIA endorses our conclusion that its Subcommittee TR45.2 should revise the interim standard, consistent with the requirements that we adopt. TIA states that the Subcommittee has the expertise and resources to issue a revised technical standard in the most efficient and expeditious manner, and that it will make every effort to expedite the completion of a stable, ballot-ready revision of the final standard within 180 days.[237] TIA contends, however, that 180 days for a balloted and approved standard is not possible.[238] TIA also requests clarification as to whether the revisions to the interim standard should be balloted as a TIA/American National Standards Institute (ANSI) standard, or as another interim standard. TIA states that the former procedure would extend the balloting and approval process. Finally, TIA states that representatives from our Office of Engineering and Technology should participate in the standard's formulating group, and that members of the privacy and law enforcement communities are strongly encouraged to participate.[239]

126. Several parties submitted comments consistent with those submitted by TIA. US West states that it supports the proposed remand to the TIA Subcommittee, but that the expectation that the Subcommittee will be able to complete its work within 180 days probably is overly optimistic. US West contends that developing a consensus on the necessary technical standards and having them subsequently approved by ballot, as required under ANSI procedures, could take more than one year.[240] SBC states that it agrees with us about remanding the interim standard to the Subcommittee, but contends that whether the activity of the Subcommittee can be completed within 180 days will depend upon the extent of our modifications.[241] AT&T states that it may be feasible to complete technical amendments to the interim standard within 180 days, but that procedures for promulgation as a final industry standard will require additional time.[242] However, DoJ/FBI contend that if the Commission is specific about the changes required to the

[237] TIA Comments, at iii.

[238] TIA Reply Comments, at 10.

[239] TIA Comments, at 15-16.

[240] US West Comments, at ii.

[241] SBC Comments, at 18.

[242] AT&T Comments, at 23.

interim standard, there is no reason why the Subcommittee cannot produce a ballot-ready draft within 90 days and a vote on the final standard within an additional 90 days.[243]

127. TIA argues that implementation of the additional punch list capabilities by manufacturers and carriers should be at least 36 months after the June 30, 2000 deadline for implementing the capability requirements covered by the interim standard.[244] This deadline would provide manufacturers approximately 24 months to design and test new products and provide carriers approximately 12 months to acquire and test new products in their networks, according to TIA. DoJ/FBI suggest that manufacturers and carriers be required to implement the punch list capabilities within 18 months of adoption of a revised industry standard.[245] DoJ/FBI argue that the industry already has begun work on revisions to the standard to include the punch list capabilities,[246] and points to the long delays that already have occurred in implementing CALEA, urging the Commission not to delay further industry compliance.

128. *Discussion.* As proposed, we are remanding the interim standard to Subcommittee TR45.2 of the TIA to make the necessary technical modifications in accord with our findings herein. We believe that those technical requirements can be most efficiently implemented by permitting the Subcommittee to make the modifications. LEAs, carriers, and manufacturers are voting members of the Subcommittee, and the Subcommittee has the experience and resources in place to resolve these issues quickly. Regarding the specific timing requirements, we conclude that seven months is a reasonable period of time for TIA to complete the necessary changes to J-STD-025. We note that only certain punch list items will need to be included in the revised standard, which will reduce the amount of work to be completed, and that the industry already has begun work in this regard. Accordingly, we will require TIA to complete the necessary revisions to the interim standard by March 30, 2000. We find it sufficient for TIA to adopt a revised TIA interim standard and see no need or benefit to consider the revised standard as an ANSI standard. Commission staff will closely monitor the development of the revised standard, but will not participate directly so that we can maintain our impartiality in the event of disputes relative to the revised standard.

---

[243] DoJ/FBI Reply Comments, at 74.

[244] TIA Comments, at 17-20. BellSouth supports TIA's suggested implementation deadline. BellSouth Comments, at 15.

[245] DoJ/FBI Comments, at 29-30. DoJ/FBI support a 180 day period for revising the industry standard; thus, implementation should occur approximately within two years of a decision in this proceeding.

[246] DoJ/FBI notes the industry began work on an Enhanced Surveillance Services standards document in 1998. DoJ/FBI Comments, at 32.

129. We will require wireline, cellular, and broadband PCS carriers to make the six punch list capabilities available to LEAs by September 30, 2001. We believe that manufacturers, if they have not done so already, will begin working to include the additional capabilities in their products as soon as practicable after adoption of this *Third R&O*, rather than delay such work until after the June 30, 2000 deadline, as TIA suggests. Relative to implementation of the core interim standard, the September 30, 2001 deadline will provide carriers an additional 15 months to implement these capabilities. We find that this deadline provides sufficient time for the development process to be completed and for carriers to implement these capabilities.

E. Other Technologies and Systems

130. *Background.* In the *Further NPRM,* we noted that the interim standard applies only to wireline, cellular, and broadband PCS carriers. CALEA assistance capability requirements for other telecommunications service providers, including paging, specialized mobile radio (SMR), and satellite service providers, are not covered by that standard. Industry associations or standard-setting organizations that represent such service providers that fit within the definition of telecommunications carrier under CALEA may establish voluntary standards to achieve compliance with section 103 by the June 30, 2000 deadline, and take advantage of the safe harbor provision of section 107(a). The absence of an industry standard, however, does not relieve such carriers from the obligations imposed by section 103.[247] In the absence of a publicly available standard, a carrier will have to work with its vendors to develop an individual CALEA solution, and a carrier is free to choose a solution that is specifically tailored to its particular system and technology.

131. *Comments.* Motorola states that it has been active with respect to technical work involving paging, satellite, SMR, and Enhanced Specialized Mobile Radio (ESMR) systems. It contends that we should defer to and encourage these ongoing efforts by other sectors of the telecommunications industry to comply with CALEA's obligations. Motorola also recommends that we clarify that this *Third R&O* is not a checklist against which other standards will be judged in the future because requirements that may be reasonable in the wireline, cellular, or PCS context simply may not apply to other technologies. Finally, Motorola states that we should recognize that despite industry's best efforts, compliance for these other technologies may not be possible by June 30, 2000. Motorola states that we may want to grant a blanket extension for these technologies and postpone their capability compliance until their eventual capacity deadline under the FBI's final notice of capacity.[248]

[247] 47 U.S.C. § 1006(a)(3)(B).

[248] Motorola Comments, at 5-9.

132. American Mobile Satellite Corporation (AMSC) states that, in the absence of petitions to us, we should allow operators of systems that use other technologies to establish, in consultation with LEAs, the capability requirements that will apply to their services. AMSC states that only if we are requested to consider the adequacy of technical rules or standards that are adopted for carriers not covered by the interim standard should we become involved.[249] Similarly, ICO Services Limited (ICO) states that we should not take any action at this time with respect to mobile satellite providers, and should allow those providers to work directly with LEAs to establish standards.[250] AT&T states that, unless a party asks us to intercede in the standards process, we should have no direct role. Rather, we should announce general capability principles under section 103, leaving industry associations or standard setting bodies to implement the requirements based on the particular technology.[251] Southern Communications Services, Inc. (Southern) states that we should establish a CALEA safe harbor standard for SMR carriers, but that our role in the standards setting process should be limited absent a deficiency petition or failure of industry to establish standards. Southern further states that our decisions herein should serve only as a general guide for SMR carriers, and that the definition of reasonably available will differ based on the particular technology employed.[252] Finally, PCIA states that it has developed a safe harbor standard for traditional paging providers, whereby such providers will meet the assistance capability requirements through the provision of cloned pagers. However, PCIA contends that NYPD has requested that paging carriers provide specific call-identifying information that is neither required by section 103 nor by the paging safe harbor standard, and that this request should be rejected.[253]

133. *Discussion.* Under Section 107 of CALEA, we can establish technical requirements or standards only after a Government agency or person petitions us to do so because an industry standard has not been developed or because the petitioner finds that such a standard is deficient. In the absence of a petition, we do not have authority to establish standards and thus do not do so herein for telecommunications carriers deploying other technologies. We note that each of the requirements we adopt herein with respect to wireline, cellular, and broadband PCS carriers is not necessarily appropriate for other technologies. As to the deadline for compliance for other technologies, we decline to extend the date. We made clear in the *Extension Order* that the June 30, 2000 deadline would apply to all telecommunications carriers and should provide

[249] AMSC Comments, at 3.

[250] ICO Comments, at 3.

[251] AT&T Comments, at 23-24.

[252] Southern Reply Comments, at 2-6.

[253] PCIA Comments, at 13-14.

sufficient time for the development of CALEA-compliant technology.[254] Accordingly, while we will consider any petitions that may be filed to extend that deadline for specific services, we decline to issue a blanket extension herein. Finally, with respect to PCIA's concerns regarding the safe harbor standard it says that it has developed with respect to paging systems, no party has petitioned us contending that PCIA's paging standard is deficient. Therefore, there is at present no issue for us to resolve regarding that standard.

F. Other Matters

134. *Standardized Delivery Interface.* DoJ/FBI contend that there is another capability that should be included in the final industry standard; namely, a standardized delivery interface that would limit the number of potential delivery interfaces LEAs would need to accommodate from the telecommunications industry. DoJ/FBI state that the interim standard does not contain any limitation on the number of protocols that may be used by carriers to deliver call content and call-identifying information. Therefore, according to DoJ/FBI, unless a relatively small number of standardized protocols are employed, each carrier will be free to employ a different interface protocol, and LEAs could be faced with prohibitive practical and financial burdens in equipping themselves to deal with scores of different protocols. DoJ/FBI state that this capability was part of their original punch list[255] and they have not dropped it from consideration, even though we stated in the *Further NPRM* that it had been dropped.[256] DoJ/FBI argue that limiting the number of delivery interfaces will ensure that industry meets the assistance capability requirements of section 103 by cost-effective methods.[257]

135. PrimeCo disagrees with DoJ/FBI, stating that we should not limit the number of delivery interfaces. PrimeCo states that many new digital standards are currently under consideration, and contends that the DoJ/FBI proposal contravenes legislatively-imposed parameters by discouraging the development of new services and technologies.[258]

---

[254] *See again Extension Order*, at ¶ 51.

[255] *See* DoJ/FBI "Joint Petition for Expedited Rulemaking," filed March 27, 1998, at 57-58.

[256] *See Further NPRM*, at n.30.

[257] DoJ/FBI Comments, at 70-73.

[258] PrimeCo Reply Comments, at 8-9.

136. *Discussion.* As Assistant Attorney General Colgate stated in February 1998, "a single delivery interface is not mandated by CALEA,"[259] and we see nothing in the Act that would require that the number of interfaces be limited. We believe, however, that as digital technology evolves, industry will reach agreement on a relatively limited number of delivery interfaces, which should serve to reduce costs to LEAs. Accordingly, we reject the DoJ/FBI proposal to include a standardized delivery interface capability in the final industry standard.

137. *Employee conduct and recordkeeping requirements.* The *Further NPRM* inadvertently included proposals related to employee conduct and recordkeeping requirements for telecommunications carriers.[260] These proposals were carried over from the original *Notice of Proposed Rule Making* in this proceeding,[261] and are not relevant to the issues we address herein. No comments were filed to the *Further NPRM* that addressed these proposals. Accordingly, we make no findings regarding them in this decision. We note, however, that these proposals were addressed in our recent *Report and Order* in this proceeding.[262]

G. Summary of Findings

138. In this *Order,* we have finalized technical requirements for wireline, cellular, and broadband PCS carriers. Specifically, we are requiring these carriers to implement the capabilities of the interim standard and six DoJ/FBI punch list items: content of subject-initiated conference calls; party hold, join, drop on conference calls; subject-initiated dialing and signaling information; in-band and out-of-band signaling; timing information; and dialed digit extraction. The core capabilities of the interim standard must be implemented by June 30, 2000, and packet-mode communications and the punch list items must be implemented by September 30, 2001.

IV. PROCEDURAL INFORMATION

A. Final Regulatory Flexibility Analysis

[259] *See* letter of February 3, 1998 from Stephen R. Colgate, Assistant Attorney General for Administration, to Mr. Tom Barba, Attorney at Law, Steptoe and Johnson, at 3.

[260] *See Further NPRM,* at ¶¶ 161-163.

[261] *See Notice of Proposed Rule Making,* CC Docket No. 97-213, 13 FCC Rcd 3149, 3192-93 (1998), at ¶¶ 73-75.

[262] *See Report and Order,* CC Docket No. 97-213, FCC 99-11, released March 15, 1999, at ¶¶ 90-95.

139. As required by the Regulatory Flexibility Act (RFA),[263] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Further NPRM*.[264] The Commission sought written public comments on the proposals in the *Further NPRM*, including the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[265]

(A) *Need for and Purpose of this Action*

140. This *Third Report and Order* responds to the legislative mandate contained in the Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in sections of 18 U.S.C. and 47 U.S.C.). The Commission, in compliance with 47 U.S.C. § 229, promulgates rules in this *Third Report and Order* to ensure the prompt implementation of section 103 of CALEA. In enacting CALEA, Congress sought to balance three key policies with CALEA: "(1) to preserve a narrowly focused capability for law enforcement agencies to carry out properly authorized intercepts; (2) to protect privacy in the face of increasingly powerful and personally revealing technologies; and (3) to avoid impeding the development of new communications services and technologies."

141. The rules adopted in this *Third Report and Order* implement Congress's goal to balance the three key policies enumerated above. The objective of the rules is to implement as quickly and effectively as possible the national telecommunications policy for wireline, cellular, and broadband PCS telecommunications carriers to support the lawful electronic surveillance needs of law enforcement agencies.

(B) *Summary of the Issues Raised by Public Comments Made in Response to the IRFA*

142. *Summary of Initial Regulatory Flexibility Analysis (IRFA).* In the *Further NPRM*, the Commission performed an IRFA and asked for comments that specifically addressed issues raised in the IRFA. No parties filed comments directly in response to the IRFA. In response to non-IFRA comments to the *Further NPRM*, we have modified several of the Commission's proposals, particularly regarding packet switching, conference call content, in-band and out-of-band signaling, and timing information, as discussed above.

---

[263] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[264] 13 FCC Rcd 22632 (1998).

[265] *See* 5 U.S.C. § 604.

(C) *Description and Estimates of the Number of Entities Affected by This Third Report and Order*

143. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the action taken.[266] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[267] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[268] A small business concern is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[269] A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[270] Nationwide, as of 1992, there were approximately 275,801 small organizations.[271] And finally, "small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."[272] As of 1992, there were approximately 85,006 such jurisdictions in the United States.[273] This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.[274] The United States Bureau of the Census (Census Bureau) estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities. Below, we

---

[266] 5 U.S.C. § 603(b)(3).

[267] *Id.* § 601(6).

[268] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

[269] Small Business Act, 15 U.S.C. § 632.

[270] 5 U.S.C. § 601(4).

[271] 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

[272] 5 U.S.C. § 601(5).

[273] U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."

[274] *Id.*

further describe and estimate the number of small business concerns that may be affected by the actions taken in this Third Report and Order.

144. As noted, under the Small Business Act, a "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the SBA.[275] The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be small entities when they have no more than 1,500 employees.[276] We first discuss the number of small telecommunications entities falling within these SIC categories, then attempt to refine further those estimates to correspond with the categories of telecommunications companies that are commonly used under our rules.

145. *Total Number of Telecommunications Entities Affected.* The Census Bureau reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.[277] This number contains a variety of different categories of entities, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, PCS providers, covered SMR providers, and resellers. It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated."[278] For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It seems reasonable to conclude, therefore, that fewer than 3,497 telephone service firms are small entity telephone service firms or small incumbent LECs that may be affected by the actions taken in this Third Report and Order.

146. The most reliable source of current information regarding the total numbers of common carrier and related providers nationwide, including the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its *Carrier Locator* report, derived from filings made in connection with the Telecommunications Relay Service (TRS).[279]

---

[275] 15 U.S.C. § 632. *See, e.g., Brown Transport Truckload, Inc. v. Southern Wipers, Inc.*, 176 B.R. 82 (N.D. Ga. 1994).

[276] 13 C.F.R. § 121.201.

[277] United States Department of Commerce, Bureau of the Census, *1992 Census of Transportation*, Communications, and Utilities: Establishment and Firm Size, at Firm Size 1-123 (1995) ("1992 Census").

[278] 15 U.S.C. § 632(a)(1).

[279] FCC, *Carrier Locator: Interstate Service Providers*, Figure 1 (Jan. 1999) (*Carrier Locator*). *See also* 47 C.F.R. § 64.601-.608.

According to data in the most recent report, there are 3,604 interstate carriers.[280] These include, *inter alia*, local exchange carriers, wireline carriers and service providers, interexchange carriers, competitive access providers, operator service providers, pay telephone operators, providers of telephone toll service, providers of telephone exchange service, and resellers.

147. We have included small incumbent local exchange carriers (LECs) in this RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[281] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[282] We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on FCC analyses and determinations in other, non-RFA contexts.

148. *Wireline Carriers and Service Providers (SIC 4813).* The Census Bureau reports that there were 2,321 telephone communications companies other than radiotelephone companies in operation for at least one year at the end of 1992.[283] All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 2,295 small entity telephone communications companies other than radiotelephone companies that may be affected by the actions taken in this Third Report and Order.

---

[280] *Carrier Locator* at Fig. 1.

[281] 5 U.S.C. § 601(3).

[282] Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b). Since 1996, out of an abundance of caution, the Commission has included small incumbent LECs in its regulatory flexibility analyses. *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket, 96-98, First Report and Order, 11 FCC Rcd 15499, 16144-45 (1996).

[283] 1992 Census, *supra*, at Firm Size 1-123.

149. *Local Exchange Carriers, Interexchange Carriers, Competitive Access Providers, and Resellers.* Neither the Commission nor SBA has developed a definition of small LECs, interexchange carriers (IXCs), competitive access providers (CAPs), or resellers. The closest applicable definition for these carrier-types under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[284] The most reliable source of information regarding the number of these carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS.[285] According to our most recent data, there are 1,410 LECs, 151 IXCs, 129 CAPs, and 351 resellers.[286] Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of these carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,410 small entity LECs or small incumbent LECs, 151 IXCs, 129 CAPs, and 351 resellers that may be affected by the actions taken in this Third Report and Order.

150. *Wireless Carriers (SIC 4812).* The Census Bureau reports that there were 1,176 radiotelephone (wireless) companies in operation for at least one year at the end of 1992, of which 1,164 had fewer than 1,000 employees.[287] Even if all of the remaining 12 companies had more than 1,500 employees, there would still be 1,164 radiotelephone companies that might qualify as small entities if they are independently owned are operated. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of radiotelephone carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,164 small entity radiotelephone companies that may be affected by the actions taken in this Third Report and Order.

151. *Cellular, PCS, SMR and Other Mobile Service Providers.* In an effort to further refine our calculation of the number of radiotelephone companies that may be affected by the actions taken in this Second Report and Order, we consider the data that we collect annually in connection with the TRS for the subcategories Wireless Telephony (which includes PCS, Cellular, and SMR) and Other Mobile Service Providers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to these broad subcategories, so we will utilize the closest applicable definition under SBA rules, which is for radiotelephone

---

[284] 13 C.F.R. § 121.210, SIC Code 4813.

[285] *See* 47 C.F.R. § 64.601 *et seq.*; *Carrier Locator* at Fig. 1.

[286] *Carrier Locator* at Fig. 1. The total for resellers includes both toll resellers and local resellers. The TRS category for CAPs also includes competitive local exchange carriers (CLECs) (total of 129 for both).

[287] United States Department of Commerce, Bureau of the Census, *1992 Census of Transportation*, Communications, and Utilities: Establishment and Firm Size, at Firm Size 1-123 (1995) ("1992 Census").

communications companies.[288] According to our most recent TRS data, 732 companies reported that they are engaged in the provision of Wireless Telephony services and 23 companies reported that they are engaged in the provision of Other Mobile Services.[289] Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of Wireless Telephony Providers and Other Mobile Service Providers, except as described below, that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 732 small entity Wireless Telephony Providers and fewer than 23 small entity Other Mobile Service Providers that might be affected by the actions taken in this Second Report and Order.

152. *Broadband PCS Licensees.* The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small business" for Blocks C and F as an entity that has average gross revenues of not more than $40 million in the three previous calendar years.[290] These regulations defining "small business" in the context of broadband PCS auctions have been approved by SBA.[291] No small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There have been 237 winning bidders that qualified as small entities in the four auctions that have been held for licenses in Blocks C, D, E and F, all of which may be affected by the actions taken in this Second Report and Order.

153. *Cellular Licensees.* According to the Bureau of the Census, only twelve radiotelephone firms from a total of 1,178 such firms which operated during 1992 had 1,000 or more employees. Therefore, even if all twelve of these firms were cellular telephone companies, nearly all cellular carriers were small businesses under the SBA's definition. In addition, we note that there are 1,758 cellular licenses; however, a cellular licensee may own several licenses. In addition, according to the most recent Carrier Locator data, 732 carriers reported that they were engaged in the provision of either cellular service or PCS services, which are placed together in the data. We do not have data specifying the number of these carriers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than

[288] *Id.* To the extent that the Commission has adopted definitions for small entities in connection with the auction of particular wireless licenses, we discuss those definitions below.

[289] *Carrier Locator* at Fig. 1.

[290] 47 C.F.R. § 24.720(b)(1).

[291] *Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532, 5581-84 (1994).

732 small cellular service carriers that may be affected by the actions taken in this Second Report and Order.

(D) *Description of Projected Reporting, Recordkeeping and Other Compliance Requirements.*

154. No reporting and recordkeeping requirements are imposed on telecommunications carriers, thus burdens on carriers, including small carriers, are not increased as a result of actions taken herein. Telecommunications carriers, including small carriers, will have to upgrade their network facilities to provide to law enforcement the assistance capability requirements adopted herein. Although compliance with the technical requirements will impose costs on carriers, the record was not sufficient to analyze thoroughly the costs to carriers, including small carriers (*see* paragraph 30, *supra*).

(E) *Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered.*

155. The need for the regulations adopted herein is mandated by Federal legislation. In the final regulations, we affirm our proposals in the *Further NPRM* to establish regulations for wireline, cellular, and broadband PCS telecommunications carriers. Costs to telecommunications carriers will be mitigated in several ways. For example, the final regulations will require telecommunications carrier's to make available to law enforcement call identifying information when it can be done without unduly burdening the carrier with network modifications, thus allowing cost to be a consideration in determining whether the information is reasonably available to the carrier and can be provided to law enforcement (*see* paragraphs 28-29, *supra*). Thus, compliance with the assistance capability requirements of CALEA will be reasonable for all carriers, including small carriers. Also, under CALEA some carriers will be able to request reimbursement from the Department of Justice for network upgrades to comply with the technical requirements adopted herein, and others may be able to defer network upgrades to their normal business cycle under a plan being developed by the Department of Justice.

Report to Congress

156. The Commission will send a copy of this FRFA, along with this *Third Report and Order*, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of this *Third Report and Order*, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of this *Third Report and Order*, including FRFA, will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

B. Paperwork Reduction Act of 1995 Analysis

157. This *Third Report and Order* does not contain a modified information collection.

V. ORDERING CLAUSES

158. Accordingly, IT IS ORDERED that, pursuant to sections 1, 4, 229, 301, 303, and 332 of the Communications Act of 1934, as amended, and 107(b) of the Communications Assistance for Law Enforcement Act, 47 U.S.C. §§ 151, 154, 229, 301, 303, 332, and 1006(b), this Third Report and Order and the rules specified in Appendix A ARE ADOPTED.

159. IT IS FURTHER ORDERED that the rules set forth in Appendix A WILL BECOME EFFECTIVE 90 days after publication in the Federal Register.

160. IT IS FURTHER ORDERED that the Regulatory Flexibility Analysis, as required by Section 604 of the Regulatory Flexibility Act and as set forth above, IS ADOPTED.

161. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this *Third Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas
Secretary

VI. APPENDIX A: FINAL RULES

AMENDMENTS TO THE CODE OF FEDERAL REGULATIONS

PART 22- PUBLIC MOBILE SERVICES

A. Part 22 of the Code of Federal Regulations is amended as follows:

1. The authority citation in Part 22 continues to read:

AUTHORITY: 47 U.S.C. 154, 222, 303, 309 and 332.

2. The table of contents for Part 22 is amended to add Subpart J to read as follows:

Subpart J - Required New Capabilities Pursuant to the Communications Assistance for Law Enforcement Act (CALEA)

§ 22.1100 Purpose.

Pursuant to the Communications Assistance for Law Enforcement Act (CALEA), Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in sections of 18 U.S.C. and 47 U.S.C.), this subpart contains rules that require a cellular telecommunications carrier to implement certain capabilities to ensure law enforcement access to authorized communications or call-identifying information.

§ 22.1101 Scope.

The definitions included in this subpart shall be used solely for the purpose of implementing CALEA requirements.

§ 22.1102 Definitions.

Call Identifying Information. Call identifying information means dialing or signaling information that identifies the origin, direction, destination, or termination of each communication generated or received by a subscriber by means of any equipment, facility, or service of a telecommunications carrier. Call identifying information is "reasonably available" to a carrier if it is present at an intercept access point and can be made available without the carrier being unduly burdened with network modifications.

Collection Function. The location where lawfully authorized intercepted communications and call-identifying information is collected by a law enforcement agency (LEA).

Content of subject-initiated conference calls. Capability that permits a LEA to monitor the content of conversations by all parties connected via a conference call when the facilities under surveillance maintain a circuit connection to the call.

Dialed digit extraction. Capability that permits a LEA to receive on the call data channel digits dialed by a subject when a call is connected to another carrier's service for processing and routing.

In-band and out-of-band signaling. Capability that permits a LEA to be informed when a network message that provides call identifying information (e.g., ringing, busy, call waiting signal, message light) is generated or sent by the IAP switch to a subject using the facilities under surveillance. Excludes signals generated by customer premises equipment when no network signal is generated.

Intercept Access Point (IAP). Intercept access point is a point within a carrier's system where some of the communications or call-identifying information of an intercept subject's equipment, facilities, and services are accessed.

J-STD-025. The interim standard developed by the Telecommunications Industry Association and the Alliance for Telecommunications Industry Solutions for wireline, cellular, and broadband PCS carriers. This standard defines services and features to support lawfully authorized electronic surveillance, and specifies interfaces necessary to deliver intercepted communications and call-identifying information to a LEA

LEA. Law enforcement agency; e.g., the Federal Bureau of Investigation or a local police department.

Party hold, join, drop on conference calls. Capability that permits a LEA to identify the parties to a conference call conversation at all times.

Subject-initiated dialing and signaling information. Capability that permits a LEA to be informed when a subject using the facilities under surveillance uses services that provide call identifying information, such as call forwarding, call waiting, call hold, and three-way calling. Excludes signals generated by customer premises equipment when no network signal is generated.

Timing information. Capability that permits a LEA to associate call-identifying information with the content of a call. A call-identifying message must be sent from the carrier's IAP to the LEA's Collection Function within eight seconds of receipt of that message by the IAP at least 95% of the time, and with the call event time-stamped to an accuracy of at least 200 milliseconds.

§ 22.1103 Capabilities that must be provided by a cellular telecommunications carrier.

(a) Except as provided under paragraph (b), as of June 30, 2000 a cellular telecommunications carrier shall provide to a LEA the assistance capability requirements of CALEA, *see* 47 U.S.C. § 1002. A carrier may satisfy these requirements by complying with publicly available technical requirements or standards adopted by an industry association or standard-setting organization, such as J-STD-025.

(b) As of September 30, 2001 a cellular telecommunications carrier shall provide to a LEA communications and call-identifying information transported by packet-mode communications and the following capabilities:
(1) Content of subject-initiated conference calls;
(2) Party hold, join, drop on conference calls;
(3) Subject-initiated dialing and signaling information;
(4) In-band and out-of-band signaling;
(5) Timing information;
(6) Dialed digit extraction.

PART 24- PERSONAL COMMUNICATIONS SERVICES

B. Part 24 of the Code of Federal Regulations is amended as follows:

1. The authority citation in Part 24 continues to read:

AUTHORITY: 47 U.S.C. 154, 301, 302, 303, 309 and 332.

2. The table of contents for Part 24 is amended to add Subpart J to read as follows:

Subpart J - Required New Capabilities Pursuant to the Communications Assistance for Law Enforcement Act (CALEA)

§ 24.900 Purpose.

Pursuant to the Communications Assistance for Law Enforcement Act (CALEA), Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in sections of 18 U.S.C. and 47 U.S.C.), this subpart contains rules that require a broadband PCS telecommunications carrier to implement certain capabilities to ensure law enforcement access to authorized communications or call-identifying information.

§ 24.901 Scope.

The definitions included in this subpart shall be used solely for the purpose of implementing CALEA requirements.

§ 24.902 Definitions.

Call Identifying Information. Call identifying information means dialing or signaling information that identifies the origin, direction, destination, or termination of each communication generated or received by a subscriber by means of any equipment, facility, or service of a telecommunications carrier. Call identifying information is "reasonably available" to a carrier if it is present at an intercept access point and can be made available without the carrier being unduly burdened with network modifications.

Collection Function. The location where lawfully authorized intercepted communications and call-identifying information is collected by a law enforcement agency (LEA).

Content of subject-initiated conference calls. Capability that permits a LEA to monitor the content of conversations by all parties connected via a conference call when the facilities under surveillance maintain a circuit connection to the call.

Dialed digit extraction. Capability that permits a LEA to receive on the call data channel a digits dialed by a subject after a call is connected to another carrier's service for processing and routing.

IAP. Intercept access point is a point within a carrier's system where some of the communications or call-identifying information of an intercept subject's equipment, facilities, and services are accessed.

In-band and out-of-band signaling. Capability that permits a LEA to be informed when a network message that provides call identifying information (e.g., ringing, busy, call waiting signal, message light) is generated or sent by the IAP switch to a subject using the facilities under surveillance. Excludes signals generated by customer premises equipment when no network signal is generated.

J-STD-025. The interim standard developed by the Telecommunications Industry Association and the Alliance for Telecommunications Industry Solutions for wireline, cellular, and broadband PCS carriers. This standard defines services and features to support lawfully authorized electronic surveillance, and specifies interfaces necessary to deliver intercepted communications and call-identifying information to a LEA

LEA. Law enforcement agency; e.g., the Federal Bureau of Investigation or a local police department.

Party hold, join, drop on conference calls. Capability that permits a LEA to identify the parties to a conference call conversation at all times.

Subject-initiated dialing and signaling information. Capability that permits a LEA to be informed when a subject using the facilities under surveillance uses services that provide call identifying

information, such as call forwarding, call waiting, call hold, and three-way calling. Excludes signals generated by customer premises equipment when no network signal is generated.

Timing information. Capability that permits a LEA to associate call-identifying information with the content of a call. A call-identifying message must be sent from the carrier's IAP to the LEA's Collection Function within eight seconds of receipt of that message by the IAP at least 95% of the time, and with the call event time-stamped to an accuracy of at least 200 milliseconds.

§ 24.903 Capabilities that must be provided by a broadband PCS telecommunications carrier.

(a) Except as provided under paragraph (b), as of June 30, 2000 a cellular telecommunications carrier shall provide to a LEA the assistance capability requirements of CALEA, *see* 47 U.S.C. § 1002. A carrier may satisfy these requirements by complying with publicly available technical requirements or standards adopted by an industry association or standard-setting organization, such as J-STD-025.

(b) As of September 30, 2001 a cellular telecommunications carrier shall provide to a LEA communications and call-identifying information transported by packet-mode communications and the following capabilities:
(1) Content of subject-initiated conference calls;
(2) Party hold, join, drop on conference calls;
(3) Subject-initiated dialing and signaling information;
(4) In-band and out-of-band signaling;
(5) Timing information;
(6) Dialed digit extraction.

PART 64 - MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

C. Part 64 of the Code of Federal Regulations is amended as follows:

1. The authority citation for Part 64 is amended to read as follows:

AUTHORITY: 47 U.S.C. §§ 151, 154, 201, 202, 205, 218-220, and 332 unless otherwise noted. Interpret or apply §§ 201, 218, 225, 226, 227, 229, 332, 48 Stat. 1070, as amended. 47 U.S.C. §§ 201-204, 208, 225, 226, 227, 229, 332, 501 and 503 unless otherwise noted.

2. The table of contents for Part 64 is amended to add Subpart W to read as follows:

Subpart W - Required New Capabilities Pursuant to the Communications Assistance for Law Enforcement Act (CALEA)

§ 64.2200 Purpose.

Pursuant to the Communications Assistance for Law Enforcement Act (CALEA), Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in sections of 18 U.S.C. and 47 U.S.C.), this subpart contains rules that require a wireline telecommunications carrier to implement certain capabilities to ensure law enforcement access to authorized communications or call-identifying information.

§ 64.2201 Scope.

The definitions included in this subpart shall be used solely for the purpose of implementing CALEA requirements.

§ 64.2202 Definitions.

Call Identifying Information. Call identifying information means dialing or signaling information that identifies the origin, direction, destination, or termination of each communication generated or received by a subscriber by means of any equipment, facility, or service of a telecommunications carrier. Call identifying information is "reasonably available" to a carrier if it is present at an intercept access point and can be made available without the carrier being unduly burdened with network modifications.

Collection Function. The location where lawfully authorized intercepted communications and call-identifying information is collected by a law enforcement agency (LEA).

Content of subject-initiated conference calls. Capability that permits a LEA to monitor the content of conversations by all parties connected via a conference call when the facilities under surveillance maintain a circuit connection to the call.

Dialed digit extraction. Capability that permits a LEA to receive on the call data channel a digits dialed by a subject after a call is connected to another carrier's service for processing and routing.

IAP. Intercept access point is a point within a carrier's system where some of the communications or call-identifying information of an intercept subject's equipment, facilities, and services are accessed.

In-band and out-of-band signaling. Capability that permits a LEA to be informed when a network message that provides call identifying information (e.g., ringing, busy, call waiting signal, message light) is generated or sent by the IAP switch to a subject using the facilities under surveillance. Excludes signals generated by customer premises equipment when no network signal is generated.

J-STD-025. The interim standard developed by the Telecommunications Industry Association and the Alliance for Telecommunications Industry Solutions for wireline, cellular, and broadband PCS carriers. This standard defines services and features to support lawfully authorized electronic surveillance, and specifies interfaces necessary to deliver intercepted communications and call-identifying information to a LEA

LEA. Law enforcement agency; e.g., the Federal Bureau of Investigation or a local police department.

Party hold, join, drop on conference calls. Capability that permits a LEA to identify the parties to a conference call conversation at all times.

Subject-initiated dialing and signaling information. Capability that permits a LEA to be informed when a subject using the facilities under surveillance uses services that provide call identifying information, such as call forwarding, call waiting, call hold, and three-way calling. Excludes signals generated by customer premises equipment when no network signal is generated.

Timing information. Capability that permits a LEA to associate call-identifying information with the content of a call. A call-identifying message must be sent from the carrier's IAP to the LEA's Collection Function within eight seconds of receipt of that message by the IAP at least 95% of the time, and with the call event time-stamped to an accuracy of at least 200 milliseconds.

§ 64.2203 Capabilities that must be provided by a wireline telecommunications carrier.

(a) Except as provided under paragraph (b), as of June 30, 2000 a cellular telecommunications carrier shall provide to a LEA the assistance capability requirements of CALEA, *see* 47 U.S.C. § 1002. A carrier may satisfy these requirements by complying with publicly available technical requirements or standards adopted by an industry association or standard-setting organization, such as J-STD-025.

(b) As of September 30, 2001 a cellular telecommunications carrier shall provide to a LEA communications and call-identifying information transported by packet-mode communications and the following capabilities:
(1) Content of subject-initiated conference calls;
(2) Party hold, join, drop on conference calls;
(3) Subject-initiated dialing and signaling information;
(4) In-band and out-of-band signaling;
(5) Timing information;
(6) Dialed digit extraction.

VII. APPENDIX B: MANUFACTURERS' REVENUE ESTIMATES[292]

Capability	Estimated Total Revenues ($millions)	Estimated Wireless Revenues ($millions)	Estimated Wireline Revenues ($millions)
J-STD-025	$916	$348	$569
Subject-initiated conference calls	$ 37 (4%, 9%)	$ 15 (4%, 6%)	$ 22 (4%, 12%)
Party hold, join, drop messages	$ 64 (7%, 15%)	$ 42 (12%, 18%)	$ 22 (4%, 12%)
Subject-initiated dialing and signaling	$ 35 (4%, 8%)	$ 27 (8%, 12%)	$ 8 (1%, 4%)
In-band and out-of-band signaling	$ 57 (6%, 14%)	$ 30 (9%, 13%)	$ 27 (5%, 15%)
Timing information	$ 20 (2%, 5%)	$ 13 (4%, 6%)	$ 8 (1%, 4%)
Surveillance status messages	$ 37 (4%, 9%)	$ 24 (7%, 10%)	$ 13 (2%, 7%)
Continuity check tones	$ 3 (0.3%, 0.7%)	$ 3 (0.9%, 1.3%)	$ 0[293] (0%, 0%)
Feature status messages	$ 40 (4%, 10%)	$ 19 (5%, 8%)	$ 21 (4%, 12%)
Dialed digit extraction	$121 (13%, 29%)	$ 60 (17%, 26%)	$ 60 (11%, 33%)
Total punch list	$414	$234	$180

[292] Includes revenue estimates of Alcatel Network Systems; Lucent Technologies Inc.; Motorola, Inc.; Northern Telecom Inc.; and Siemens Information and Communication Networks. Sums in below table may not add to totals due to rounding. Also, the total punch list figures include $500,000 in estimated wireless revenues that cannot be attributed to any individual punch list capability. The figures in parentheses are revenue estimates for punch list capabilities as percentages of J-STD-025 and total punch list, respectively.

[293] Actual figure is about $200,000.

VIII. APPENDIX C: COMMENTING PARTIES[294]

Comments to Further NPRM

AirTouch Communications, Inc.
American Mobile Satellite Corporation
AT&T Corp.
Ameritech Corporation
Bell Atlantic
Bell Atlantic Mobile, Inc.
BellSouth Corporation, Inc., BellSouth Telecommunications, Inc., BellSouth Cellular Corp., BellSouth Personal Communications, Inc., and BellSouth Wireless Data, L,P.
Cellular Telecommunications Industry Association
Center for Democracy and Technology
Department of Justice and Federal Bureau of Investigation
Drug Enforcement Administration
Electronic Privacy Information Center, Electronic Frontier Foundation, and American Civil Liberties Union
GTE Service Corporation
ICO Services Limited
International Association of Police Chiefs
Metricom, Inc.
New York City Police Department
New Jersey State Police
Nextel Communications, Inc.
Personal Communications Industry Association
Pomona (CA) Police Department
Rural Cellular Association
SBC Communications, Inc.
Southern Communications Services, Inc.
Telecommunications Industry Association
Texas Department of Public Safety
United States Cellular Corporation
United States Marshals Service
United States Telephone Association
US West, Inc.

[294] Excludes informal comments.

Reply Comments to Further NPRM

AirTouch Communications, Inc.
American Mobile Telecommunications Association, Inc.
AT&T Corp.
Ameritech Corporation
Bell Atlantic
Bell Atlantic Mobile, Inc.
BellSouth Corporation, Inc., BellSouth Telecommunications, Inc., BellSouth Cellular Corp., BellSouth Personal Communications, Inc., and BellSouth Wireless Data, L,P.
Cellular Telecommunications Industry Association
Center for Democracy and Technology
Department of Justice and Federal Bureau of Investigation
Electronic Privacy Information Center, Electronic Frontier Foundation, and American Civil Liberties Union
MCI WorldCom Inc
Motorola, Inc.
Moultrie Independent Telephone Company
New Jersey State Police
New York City Police Department
Nextel Communications, Inc.
Pennsylvania State Police
Personal Communications Industry Association
Pomona (CA) Police Department
PrimeCo Personal Communications, L.P.
SBC Communications, Inc.
Southern Communications Services, Inc.
Sprint PCS
Telecommunications Industry Association
Texas Department of Public Safety
United States Telephone Association
US West, Inc.

Comments to May 1999 Public Notice

AirTouch Communications, Inc.
Bell Atlantic
BellSouth Corporation
Cellular Telecommunications Industry Association
Department of Justice and Federal Bureau of Investigation
Omnipoint Communications Services LLC
Personal Communications Industry Association
PrimeCo Personal Communications, L.P.
SBC Communications, Inc.
Sprint PCS
Texas Advisory Commission on State Emergency Communications and Texas Emergency Communication Districts
United States Telephone Association
US West, Inc.

Reply Comments to May 1999 Public Notice

AirTouch Communications, Inc.
BellSouth Corporation
Cellular Telecommunications Industry Association
Department of Justice and Federal Bureau of Investigation
GTE Service Corporation
MCI WorldCom, Inc.
SBC Communications, Inc.
United States Telephone Association